

## **Appendix L**

### **List of Validation Elements Included in Final Multivariate Models, by QI**

*Appendix L reports the individual data elements (categorized as preventive and responsive) found to be related to each quality indicator. These data elements reflect specific items collected while on-site at sampled nursing facilities, such as Director of Nursing responses to questions regarding staff education or quality improvement activities, items completed by research nurses during medical record review (e.g., evidence in the medical record of assessment for a given clinical condition, other than MDS assessment), or items gathered during the facility environmental walk-through. In addition, some data elements reported in this appendix reflect composites of multiple data collection items that were found to be related to a given quality indicator (e.g., validation scale 57 is the sum of four indicators of CNA participation in care planning – see Appendix F for a detailed description of all of these scales). It is important to note that the relationships reviewed in this validation study and reported here reflect care processes that, in the aggregate, if present, appear to lead to “better” quality indicator scores among sampled facilities. Caution should therefore be used in interpreting these findings, as this study was not designed to validate care processes in facilities, but rather the relationship between quality indicator scores and care processes.*

## Chronic Prevalence

### Residents with inappropriate behavior, high & low risk (CHSRA; BEH01)

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#### *Preventive*

1. [as28eb3]: Continuing education for licensed nursing staff in behavioral decline
2. [as12a]: Percent of families attending care plan meetings
3. [val6]: Licensed Nurse Involved in Care Planning (JNM) VAL6+

#### *Responsive*

1. [val65]: Record of MH Prof (RNJ) val65+
2. [eallx7]: Evidence that resident's status changed (all facilities) - behavioral decline
3. [eallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
4. [eallx1]: Documentation in the medical record of a comprehensive assessment (all facilities)

### Residents with inappropriate behavior, high risk (CHSRA; BEH02)

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#### *Preventive*

1. [as12a]: Percent of families attending care plan meetings

#### *Responsive*

1. [eallx1]: Documentation in the medical record of a comprehensive assessment (all facilities)
2. [eallx4]: Clear evidence in the record (other than MDS and Care Plan) that the problem was noted as a problem on the chart (all facilities)
3. [eallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)

### Residents with inappropriate behavior, low risk (CHSRA; BEH03)

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#### *Preventive*

none

#### *Responsive*

none

### Residents engaging in little or no activity (CHSRA; SOC02)

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#### *Preventive*

1. [val39]: CDCPI-Psychosocial (JNM) VAL39+

2. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
3. [as26gb]: Continuing Education classes for licensed nursing staff in behavioral
4. [as39f]: CQI Protocol- Communication Changes
5. [as39e]: CQI Protocol – Behavioral Function
6. [as39g]: CQI Protocol -Bladder Incontinence
7. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
8. [val123]: No Activities Improvement Scale (JNM) val123+

*Responsive*

1. [uallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) little or no activities

**Residents with indwelling catheters (CHSRA; CAT02)**

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*Preventive*

1. [wam12]: Residents up and out of bed
2. [wam17]: Residents walking or independently moving about the facility
3. [val11]: Facility Management Contract Change (YH) VAL11-
4. [wam1]: Resident Rooms personalized with furniture, pictures and other things
5. [cnarat2]: Ratio of CNAs to licensed nurses

*Responsive*

1. [oallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
2. [oallx7]: Evidence that resident's status changed (all facilities) - indwelling
3. [oallx1]: Documentation in the medical record of a comprehensive assessment (all facilities)
4. [oallx8]: Change was evaluated within 72 hours (all facilities) - indwelling urinary catheter
5. [oallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) indwelling urinary catheter
6. [oallx12]: Treatment plan is in place to address this issue (all facilities)

**Residents who are bowel or bladder incontinent, high & low risk (CHSRA; CNT01)**

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*Preventive*

1. [as43d]: Uses CQI to conduct an overall review and evaluation to improve care
2. [wam12]: Residents up and out of bed
3. [as34]: Restraint free management directive in facility
4. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
5. [as39e]: CQI Protocol – Behavioral Function
6. [as39f]: CQI Protocol- Communication Changes
7. [wam17]: Residents walking or independently moving about the facility

*Responsive*

1. [pallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bladder incontinence
2. [qallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bowel incontinence
3. [pallx10]: Therapies were ordered in response to change (all facilities) - bladder incontinence

**Residents who are bowel & bladder incontinent, high risk (CHSRA; CNT05)**

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*Preventive*

1. [val118]: Bladder Continence Improvement Scale (JNM) val118+
2. [val74]: Focus on Catheter (JNM) VAL74+

3. [val36]: Focus on Incontinence (JNM) VAL36+
4. [wam12]: Residents up and out of bed
5. [as39e]: CQI Protocol – Behavioral Function
6. [wam17]: Residents walking or independently moving about the facility
7. [as18c]: Inquiries of resident family or staff for change in behavior
8. [as30b]: When suspicious area of skin – schedule in depth risk assessment

*Responsive*

1. [qallx11]: Referral or consult ordered in response to change (all facilities)
2. [qallx7]: Evidence that resident's status changed (all facilities) - bowel inc

**Residents who are bowel & bladder incontinent, low risk (CHSRA; CNT06)**

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*Preventive*

1. [wam17]: Residents walking or independently moving about the facility
2. [as34]: Restraint free management directive in facility
3. [as39e]: CQI Protocol – Behavioral Function
4. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
5. [as43d]: Uses CQI to conduct an overall review and evaluation to improve care

*Responsive*

1. [pallx10]: Therapies were ordered in response to change (all facilities) - bladder incontinence
2. [qallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bladder incontinence
3. [pallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bowel incontinence

**Residents with a urinary tract infection (CHSRA; CNT04)**

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*Preventive*

1. [as30b]: When suspicious area of skin – schedule in depth risk assessment
2. [as39e]: CQI Protocol – Behavioral Function
3. [wam17]: Residents walking or independently moving about the facility
4. [as18c]: Inquiries of resident family or staff for change in behavior
5. [wam12]: Residents up and out of bed
6. [val11]: Facility Management Contract Change (YH) VAL11-
7. [val55]: Licensed Staff turnover last 6mo (%,Deciles)(VM) VAL55-

*Responsive*

1. [rallx9]: Physician was notified of change (all facilities) - infections
2. [rallx12]: Treatment plan is in place to address this issue (all facilities)
3. [rallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area is noted as problem in the chart (all facilities) - Infections
4. [rallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
5. [val164]: INF Change (based on val46) (VM) val164+
6. [rallx7]: Evidence that resident's status changed (all facilities) - infection
7. [rallx1]: Documentation in the medical record of a comprehensive assessment (all facilities)
8. [rallx8]: Change was evaluated within 72 hours (all facilities) - infections

**Residents who have fallen (LTCQ; FAL01)**

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*Preventive*

1. [as27d2]: Weekly verbal reports from CNAs on communication changes

2. [as28cb3]: Standard assessment tools to routinely assess delirium
3. [as28hb3]: Standard assessment tools to routinely assess pain
4. [as28db3]: Standard assessment tools to routinely assess bladder continence

*Responsive*

1. [val17]: Formal Communication (BERG) VAL17+
2. [iallx7]: Evidence that resident's status changed (all facilities) - falls
3. [val156]: FAL Change (based on val46) (VM) val156+
4. [val5]: Communication of Falls (BERG) VAL5+

**Residents with infections (MEGAQI; INF0X)**

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*Preventive*

1. [as8a1]: Number of Licensed Nursing Staff stopped working in last 6 months
2. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
3. [cnarat2]: Ratio of CNAs to licensed nurses
4. [val11]: Facility Management Contract Change (YH) VAL11-
5. [wam12]: Residents up and out of bed
6. [val55]: Licensed Staff turnover last 6mo (%,Deciles)(VM) VAL55-

*Responsive*

1. [val164]: INF Change (based on val46) (VM) val164+
2. [rallx12]: Treatment plan is in place to address this issue (all facilities) infections
3. [rallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) infections
4. [rallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) infections
5. [rallx7]: Evidence that resident's status changed (all facilities) - infections
6. [rallx8]: Change was evaluated within 72 hours (all facilities) - infections
7. [val173]: Match of Chart & Care Plan (INF) VAL173+
8. [rallx9]: Physician was notified of change (all facilities) - infections
9. [rallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities) - infections

**Residents with a feeding tube (RAMSEY; NUT01)**

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*Preventive*

1. [as28db3]: Standard assessment tools to routinely assess bladder continence
2. [wam6]: Well-lighted common areas
3. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
4. [wam12]: Residents up and out of bed
5. [wam1]: Resident Rooms personalized with furniture, pictures and other things
6. [wam17]: Residents walking or independently moving about the facility
7. [as12a]: Percent of families attending care plan meetings

*Responsive*

1. [val159]: NUT Change (based on val46) (VM) val159+
2. [mallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
3. [mallx8]: Change was evaluated within 72 hours (all facilities) - feeding tube
4. [mallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) feeding tube
5. [mallx7]: Evidence that resident's status changed (all facilities) - feeding tube
6. [mallx12]: Treatment plan is in place to address this issue (all facilities)

7. [mallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) - Feeding tube

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**Residents with a low BMI (MEGAQI; BMI0X)**

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*Preventive*

1. [as43d]: Uses CQI to conduct an overall review and evaluation to improve care
2. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
3. [as26gb]: Continuing Education classes for licensed nursing staff in behavioral
4. [as34]: Restraint free management directive in facility
5. [as18c]: Inquiries of resident family or staff for change in behavior
6. [as26ga]: Continuing education for CNAs in Behavior Function

*Responsive*

1. [val160]: WGT Change (based on val46) (VM) val160+

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**Residents who have unexplained weight loss (LTCQ; WGT01)**

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*Preventive*

1. [wam11]: Variety of activities for residents with different capabilities
2. [val147]: Total involvement in Care Planning (SC) VAL147+
3. [val57]: CNA Involved in Care Planning (VM, JT) VAL57+

*Responsive*

none

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**Residents with pain (MEGAQI; PAI0X)**

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*Preventive*

1. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
2. [val55]: Licensed Staff turnover last 6mo (%,Deciles)(VM) VAL55-
3. [val80]: Frequency of Comprehensive Assessments (JT) VAL80+
4. [as26ga]: Continuing education for CNAs in Behavior Function
5. [as8a1]: Number of Licensed Nursing Staff stopped working in last 6 months

*Responsive*

1. [kallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
2. [as11a]: Care plan meetings scheduled into CNAs workday
3. [kallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) pain
4. [val48]: Match of MDS & Care Plan (MATCHPLAN) (VM) VAL48+

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**Residents with pressure sores, high & low risk (CHSRA; PRU01)**

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*Preventive*

1. [val53]: 5%+ RN, LPN Float, Contract (VM) VAL53-
2. [val42]: CDCPI3-Cross Domain Quality Response (JNM) VAL42+
3. [wam12]: Residents up and out of bed
4. [wam17]: Residents walking or independently moving about the facility
5. [as30a]: When suspicious area of skin – schedule more frequent skin evaluation
6. [wam1]: Resident Rooms personalized with furniture, pictures and other things
7. [wam11]: Variety of activities for residents with different capabilities
8. [val11]: Facility Management Contract Change (YH) VAL11-
9. [wam19]: Staff help resident with food and liquids

10. [as28cb3]: Standard assessment tools to routinely assess delirium

*Responsive*

1. [val81]: % Residents w/Treatment Plans for Weight Loss (JT) VAL81+
2. [val165]: PRU Change (based on val46) (VM) val165+
3. [sallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) - pressure ulcers
4. [sallx8]: Change was evaluated within 72 hours (all facilities) - pressure ulcers
5. [sallx10]: Therapies were ordered in response to change (all facilities) - pressure ulcers
6. [sallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
7. [sallx7]: Evidence that resident's status changed (all facilities) - pressure ulcers
8. [val174]: Match of Chart & Care Plan (PRU) VAL174+
9. [sallx9]: Physician was notified of change (all facilities) - pressure ulcers
10. [sallx12]: Treatment plan is in place to address this issue (all facilities)
11. [sallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) pressure ulcers
12. [sallx11]: Referral or consult ordered in response to change (all facilities) - pressure ulcers

**Residents with burns, skin tears or cuts (MEGAQI; BUR0X)**

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*Preventive*

1. [as30b]: When suspicious area of skin – schedule in depth risk assessment
2. [as8a1]: Number of Licensed Nursing Staff stopped working in last 6 months
3. [val99]: Training & Policy for Suspicious Skin (PILOT) VAL99+
4. [as18e]: Observes and identifies changes in eating, sleeping, bowels, mood, behavior

*Responsive*

1. [tallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) burns, abrasions
2. [tallx12]: Treatment plan is in place to address this issue (all facilities) - burns, abrasions
3. [tallx8]: Change was evaluated within 72 hours (all facilities) - burns, abrasions
4. [tallx9]: Physician was notified of change (all facilities) - burns, abrasions
5. [val166]: BUR Change (based on val46) (VM) val166+
6. [tallx7]: Evidence that resident's status changed (all facilities) - burns, abrasions
7. [tallx10]: Therapies were ordered in response to change (all facilities) - burns, abrasions

**Residents in physical restraints (CHSRA; RES01)**

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*Preventive*

1. [as34]: Restraint free management directive in facility
2. [as18c]: Inquiries of resident family or staff for change in behavior
3. [val16]: Use of QA nurse as38 (YH,VM) VAL16+

*Responsive*

1. [lallx8]: Change was evaluated within 72 hours (all facilities) - physical restraints
2. [lallx7]: Evidence that resident's status changed (all facilities) - physical restraints
3. [lallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) physical restraints
4. [val75]: Physical Restraints (JA) VAL75+
5. [lallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) physical restraints
6. [lallx12]: Treatment plan is in place to address this issue (all facilities) physical restraints

7. [lallx9]: Physician was notified of change (all facilities) - physical restraints

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**Residents on antipsychotics without a diagnosis of psychosis, high & low risk (CHSRA; DRG01)**

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**Preventive**

1. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
2. [as18c]: Inquiries of resident family or staff for change in behavior
3. [as18e]: Observes and identifies changes in eating, sleeping, bowels, mood, behavior
4. [as34]: Restraint free management directive in facility
5. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety

**Responsive**

1. [jallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) anti-psychotic drugs
2. [jallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) antipsychotic drugs
3. [jallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities) antipsychotic drugs

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**Residents on antipsychotics without a diagnosis of psychosis, high risk (CHSRA; DRG02)**

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**Preventive**

none

**Responsive**

1. [jallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) antipsychotic drugs

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**Residents on antipsychotics without a diagnosis of psychosis, low risk (CHSRA; DRG03)**

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**Preventive**

1. [val8]: Polypharmacy Monitoring (JNM) VAL8+

**Responsive**

1. [jallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) antipsychotic drugs
2. [jallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities) - antipsychotic drugs
3. [jallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) - antipsychotic drugs



## CHRONIC INCIDENCE

### Residents who had an unexpected loss of function in some basic daily activities (CHSRA; ADL01)

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#### *Preventive*

1. [val37]: CDCPI-Functional (JNM) VAL37+
2. [as28hb3]: Standard assessment tools to routinely assess pain
3. [as39g]: CQI Protocol -Bladder Incontinence
4. [as28fb3]: Standard assessment tools to routinely assess communication change
5. [as26fa]: Continuing education for CNAs in communication change
6. [val109]: ADL Decline Improvement Scale (JNM) val109+
7. [val10]: General Management Instability JNM) VAL10-
8. [as39e]: CQI Protocol – Behavioral Function
9. [as28cb3]: Standard assessment tools to routinely assess delirium
10. [wam12]: Residents up and out of bed
11. [as39f]: CQI Protocol- Communication Changes
12. [as43d]: Uses CQI to conduct an overall review and evaluation to improve care
13. [as28bb3]: Standard assessment tools to routinely assess depression, moods and

#### *Responsive*

1. [gallx11]: Referral or consult ordered in response to change (all facilities)

### Residents with worsening function in some basic daily activities (MEGAQI; ADL02)

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#### *Preventive*

1. [as39e]: CQI Protocol – Behavioral Function
2. [wam17]: Residents walking or independently moving about the facility
3. [val36]: Focus on Incontinence (JNM) VAL36+
4. [as39g]: CQI Protocol -Bladder Incontinence
5. [wam1]: Resident Rooms personalized with furniture, pictures and other things
6. [val72]: Observation of Movement Scale (JS) val72+
7. [wam12]: Residents up and out of bed
8. [as18c]: Inquiries of resident family or staff for change in behavior
9. [val32]: Incontinence Management (JNM) VAL32+
10. [val42]: CDCPI3-Cross Domain Quality Response (JNM) VAL42+
11. [wam11]: Variety of activities for residents with different capabilities
12. [wam6]: Well-lighted common areas
13. [val37]: CDCPI-Functional (JNM) VAL37+
14. [as39f]: CQI Protocol- Communication Changes
15. [as28fb3]: Standard assessment tools to routinely assess communication change
16. [wam19]: Staff help resident with food and liquids
17. [as28hb3]: Standard assessment tools to routinely assess pain

#### *Responsive*

1. [fallx11]: Referral or consult ordered in response to change (all facilities)

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**Residents who have improved in their ability to function (MEGAQI; ADL03)**

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**Preventive**

1. [as27d2]: Weekly verbal reports from CNAs on communication changes
2. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety
3. [as39f]: CQI Protocol- Communication Changes
4. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
5. [as39e]: CQI Protocol – Behavioral Function

**Responsive**

none

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**Residents who have declined in their ability to locomote (LTCQ; MOB01)**

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**Preventive**

1. [as28fb3]: Standard assessment tools to routinely assess communication change
2. [as28bb3]: Standard assessment tools to routinely assess depression, moods and behavior
3. [as39g]: CQI Protocol -Bladder Incontinence
4. [val37]: CDCPI-Functional (JNM) VAL37+
5. [as28eb3]: Continuing education for licensed nursing staff in behavioral functioning
6. [as28hb3]: Standard assessment tools to routinely assess pain
7. [as28cb3]: Standard assessment tools to routinely assess delirium
8. [as39e]: CQI Protocol – Behavioral Function

**Responsive**

1. [hallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)

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**Residents who walk as well or better than the previous assessment (MEGAQI; WAL0X)**

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**Preventive**

1. [as39f]: CQI Protocol- Communication Changes
2. [as34]: Restraint free management directive in facility
3. [as28fb3]: Standard assessment tools to routinely assess communication change
4. [as39e]: CQI Protocol – Behavioral Function
5. [as28cb3]: Standard assessment tools to routinely assess delirium
6. [as39g]: CQI Protocol -Bladder Incontinence
7. [as28hb3]: Standard assessment tools to routinely assess pain
8. [as28eb3]: Continuing education for licensed nursing staff in behavioral functioning
9. [as28bb3]: Standard assessment tools to routinely assess depression, moods

**Responsive**

none

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**Residents whose cognitive ability has worsened (LTCQ; COG01)**

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**Preventive**

1. [as43d]: Uses CQI to conduct an overall review and evaluation to improve care
2. [val18]: Behavioral Items (YH) VAL18+
3. [as39f]: CQI Protocol- Communication Changes
4. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety
5. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
6. [wam1]: Resident Rooms personalized with furniture, pictures and other things
7. [val103]: Cognitive Improvement Scale (JNM) val103+
8. [as39e]: CQI Protocol – Behavioral Function

9. [as28fb3]: Standard assessment tools to routinely assess communication change
10. [as18c]: Inquiries of resident family or staff for change in behavior
11. [val2]: Monitor Change in Function/Cognitive Care (JNM) VAL2+
12. [val88]: Cognitive Behavioral Care Practices (PILOT) VAL88+

*Responsive*

1. [aallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) - cognitive impairment
2. [val148]: COG Change (based on val46) (VM) val148+
3. [as11a]: Care plan meetings scheduled into CNAs workday
4. [aallx10]: Therapies were ordered in response to change (all facilities) - cognitive impairment
5. [aallx12]: Treatment plan is in place to address this issue (all facilities) - cognitive impairment
6. [aallx8]: Change was evaluated within 72 hours (all facilities) - cognitive impairment
7. [aallx11]: Referral or consult ordered in response to change (all facilities) cognitive impairment
8. [aallx7]: Evidence that resident's status changed (all facilities) - cognitive impairment

**Residents whose ability to communicate has worsened (LTCQ; COM01)**

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*Preventive*

1. [as18c]: Inquiries of resident family or staff for change in behavior
2. [val8]: Polypharmacy Monitoring (JNM) VAL8+
3. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety

*Responsive*

1. [ballx7]: Evidence that resident's status changed (all facilities) - communication
2. [as11a]: Care plan meetings scheduled into CNAs workday
3. [ballx10]: Therapies were ordered in response to change (all facilities) - com
4. [ballx11]: Referral or consult ordered in response to change (all facilities)
5. [ballx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) Communication

**Residents with symptoms of delirium (MEGAQI; DEL0X)**

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*Preventive*

1. [as26gb]: Continuing Education classes for licensed nursing staff in behavioral
2. [val88]: Cognitive Behavioral Care Practices (PILOT) VAL88+
3. [val8]: Polypharmacy Monitoring (JNM) VAL8+
4. [as27d2]: Weekly verbal reports from CNAs on communication changes
5. [as26ga]: Continuing education for CNAs in Behavior Function
6. [as18c]: Inquiries of resident family or staff for change in behavior
7. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
8. [as39g]: CQI Protocol -Bladder Incontinence
9. [as18e]: Observes and identifies changes in eating, sleeping, bowels, mood, behavior
10. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety

*Responsive*

none

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**Residents whose behavior has worsened (LTCQ; BEH04)**

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**Preventive**

1. [as30b]: When suspicious area of skin – schedule in depth risk assessment

**Responsive**

1. [as11a]: Care plan meetings scheduled into CNAs workday

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**Residents who have become more depressed or anxious (LTCQ; MOD03)**

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**Preventive**

1. [wam1]: Resident Rooms personalized with furniture, pictures and other things
2. [wam6]: Well-lighted common areas
3. [wam19]: Staff help resident with food and liquids
4. [wam12]: Residents up and out of bed
5. [val93]: Activities in NH (PILOT) VAL93+
6. [val151]: MOD Change (based on val46) (VM) val151+
7. [wam17]: Residents walking or independently moving about the facility

**Responsive**

none

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**Residents with a new indwelling catheter (LTCQ; CAT01)**

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**Preventive**

1. [as26ga]: Continuing education for CNAs in Behavior Function
2. [val49]: Ownership Change as1 (VM) VAL49-
3. [val10]: General Management Instability JNM) VAL10-
4. [as27d2]: Weekly verbal reports from CNAs on communication changes
5. [wam19]: Staff help resident with food and liquids
6. [val11]: Facility Management Contract Change (YH) VAL11-
7. [wam12]: Residents up and out of bed
8. [wam17]: Residents walking or independently moving about the facility

**Responsive**

1. [oallx1]: Documentation in the medical record of a comprehensive assessment (a
2. [oallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) indwelling urinary catheter
3. [oallx2]: Was the resident seen by a physician (or psychiatrist)? (all facilities)
4. [oallx9]: Physician was notified of change (all facilities) - indwelling urinary catheter
5. [oallx7]: Evidence that resident's status changed (all facilities) - indwelling
6. [oallx8]: Change was evaluated within 72 hours (all facilities) - indwelling u

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**Residents with worsening bowel continence (LTCQ; CNT02)**

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**Preventive**

1. [wam17]: Residents walking or independently moving about the facility
2. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety and Behavior
3. [val36]: Focus on Incontinence (JNM) VAL36+

**Responsive**

1. [qallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bowel continence

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**Residents with worsening bladder continence (LTCQ; CNT03)**

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***Preventive***

1. [val74]: Focus on Catheter (JNM) VAL74+
2. [as39e]: CQI Protocol – Behavioral Function
3. [as28bb3]: Standard assessment tools to routinely assess depression, mood
4. [as27d2]: Weekly verbal reports from CNAs on communication changes
5. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety
6. [as39f]: CQI Protocol- Communication Changes

***Responsive***

1. [pallx12]: Treatment plan is in place to address this issue (all facilities)
2. [pallx10]: Therapies were ordered in response to change (all facilities) - bladder incontinence
3. [pallx4]: Clear evidence in the record (other than MDS and Care Plan) that the area was noted as problem in the chart (all facilities) bladder continence
4. [pallx7]: Evidence that resident's status changed (all facilities) - bladder incontinence
5. [as11a]: Care plan meetings scheduled into CNAs workday

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**Residents with worsening pain (LTCQ; PAN01)**

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***Preventive***

1. [val47]: Pain Care Planning Specificity (PAINPLAN) (VM) VAL47+
2. [wam17]: Residents walking or independently moving about the facility
3. [as39g]: CQI Protocol -Bladder Incontinence
4. [wam12]: Residents up and out of bed
5. [as39f]: CQI Protocol- Communication Changes
6. [wam19]: Staff help resident with food and liquids
7. [as39e]: CQI Protocol – Behavioral Function
8. [as18a]: Inquires of resident families or staff reasons for cognitive CHANGES
9. [val53]: 5%+ RN, LPN Float, Contract (VM) VAL53-

***Responsive***

1. [kallx11]: Referral or consult ordered in response to change (all facilities) - pain
2. [kallx1]: Documentation in the medical record of a comprehensive assessment (all facilities) - pain
3. [val45]: Pain Assessment (ASSESS) (VM) VAL45+
4. [val46]: Pain Change (CHNGRESP) (VM) VAL46+
5. [as11a]: Care plan meetings scheduled into CNAs workday

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**Residents with worsening pressure sores (LTCQ; PRU04)**

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***Preventive***

1. [val52]: CMI-Adjusted (RN+LPN FTE)/BED (VM) VAL52+
2. [val40]: CDCPI-Clinical Complications (JNM) VAL40+
3. [as26fa]: Continuing education for CNAs in communication change

***Responsive***

1. [as11a]: Care plan meetings scheduled into CNAs workday
2. [val174]: Match of Chart & Care Plan (PRU) VAL174+

## POST-ACUTE PREVALENCE

### Short-stay residents with delirium (MEGAQI; DEL0X)

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#### *Preventive*

1. [as10]: CNA attends care plan meeting
2. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety
3. [as26gb]: Continuing Education classes for licensed nursing staff in behavioral
4. [as5ca]: Hours worked by CNAs
5. [val106]: Mood Improvement Scale (JNM) val106+
6. [as26ga]: Continuing education for CNAs in Behavior Function
7. [val67]: Formal Delirium/Depression Approach (RNJ) val67+
8. [as21b]: Restorative programs in place– Passive range of motion
9. [as27b]: Daily verbal reports from CNA on behavioral function
10. [as14cb]: Proportion of residents receiving eating swallowing, meal training

#### *Responsive*

1. [val1]: Complex Mental Health Care on Site (JNM) VAL1+
2. [val65]: Record of MH Prof (RNJ) val65+

### Short-stay residents with pain (MEGAQI; PAI0X)

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#### *Preventive*

1. [as5ca]: Hours worked by CNAs
2. [as21b]: Restorative programs in place– Passive range of motion
3. [val58]: Poor Pain Assessment Policies as25h (VM) VAL58-
4. [val80]: Frequency of Comprehensive Assessments (JT) VAL80+
5. [wam9]: Homelike appearance or feeling
6. [val57]: CNA Involved in Care Planning (VM, JT) VAL57+
7. [as21c]: Restorative programs in place- Active range of motion
8. [as21d]: Restorative programs in place- ambulation/gait training
9. [val19]: NP on staff as4 (YH, VM) VAL19+
10. [as14cb]: Proportion of residents receiving eating swallowing, meal training
11. [wam12]: Residents up and out of bed
12. [val49]: Ownership Change as1 (VM) VAL49-
13. [as10]: CNA attends care plan meeting
14. [val10]: General Management Instability JNM) VAL10-
15. [wam11]: Variety of activities for residents with different capabilities
16. [as39e]: CQI Protocol – Behavioral Function
17. [wam1]: Resident Rooms personalized with furniture, pictures and other things

#### *Responsive*

1. [val48]: Match of MDS & Care Plan (MATCHPLAN) (VM) VAL48+
2. [kallx11]: Referral or consult ordered in response to change (all facilities) - pain
3. [kallx7]: Evidence that resident's status changed (all facilities) - pain
4. [kallx9]: Physician was notified of change (all facilities) - pain
5. [val46]: Pain Change (CHNGRESP) (VM) VAL46+
6. [kallx10]: Therapies were ordered in response to change (all facilities) - pain

## POST-ACUTE INCIDENCE

### Short-stay residents who have not improved since admission (MEGAQI; ADL0X)

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#### Preventive

1. [val52]: CMI-Adjusted (RN+LPN FTE)/BED (VM) VAL52+
2. [val83]: PT Asst FTE/100 Beds (BERG) VAL83+
3. [val146]: PT FTE/100 Beds (BERG) VAL146+
4. [as9d]: Restorative/Rehabilitative aide routinely contributed to care plan
5. [as28fb3]: Standard assessment tools to routinely assess communication change
6. [as28db3]: Standard assessment tools to routinely assess bladder continence
7. [wam19]: Staff help resident with food and liquids
8. [as18c]: Inquiries of resident family or staff for change in behavior

#### Responsive

none

### Short-stay residents whose ability to control their bowel or bladder has not improved since admission (MEGAQI; CNT0X)

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#### Preventive

1. [as39f]: CQI Protocol- Communication Changes
2. [as27d]: Daily verbal reports from CNA on communication changes
3. [val119]: Bowel Incontinence Improvement Scale (JNM) val119+
4. [as27b]: Daily verbal reports from CNA on behavioral function
5. [val36]: Focus on Incontinence (JNM) VAL36+
6. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety

#### Responsive

none

### Short-stay residents whose pressure sores have not gotten better (MEGAQI; PRU0X)

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#### Preventive

1. [val32]: Incontinence Management (JNM) VAL32+
2. [as21c]: Restorative programs in place- Active range of motion
3. [as9d]: Restorative/Rehabilitative aide routinely contributed to care plan
4. [wam1]: Resident Rooms personalized with furniture, pictures and other things
5. [as39a]: CQI Protocol – Dehydration
6. [wam12]: Residents up and out of bed
7. [as39f]: CQI Protocol- Communication Changes
8. [val57]: CNA Involved in Care Planning (VM, JT) VAL57+
9. [as26ga]: Continuing education for CNAs in Behavior Function
10. [as10]: CNA attends care plan meeting
11. [as5ca]: Hours worked by CNAs
12. [val36]: Focus on Incontinence (JNM) VAL36+
13. [as21b]: Restorative programs in place– Passive range of motion
14. [wam9]: Homelike appearance or feeling
15. [as39e]: CQI Protocol – Behavioral Function
16. [as21d]: Restorative programs in place- ambulation/gait training
17. [val121]: Pressure Ulcer Improvement Scale (JNM) val121+
18. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety
19. [val99]: Training & Policy for Suspicious Skin (PILOT) VAL99+

*Responsive*  
none

**Short-stay residents who have developed a respiratory infection or have not gotten better (MEGAQI; RSP0X)**

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*Preventive*

1. [as18e]: Observes and identifies changes in eating, sleeping, bowels, mood, behavior
2. [as26ga]: Continuing education for CNAs in Behavior Function
3. [as5ca]: Hours worked by CNAs
4. [as26aa]: Continuing education for CNAs in Delirium, Depression, Mood, Anxiety

*Responsive*  
none

**Short-stay residents who walk as well or better on day 14 as on day 5 of their stay (MEGAQI; WAL0X)**

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*Preventive*

1. [as26gb]: Continuing Education classes for licensed nursing staff in behavioral symptoms
2. [as10]: CNA attends care plan meeting

*Responsive*  
none